

1-21. (CANCELED)

22. (NEW) An automatic gearbox for a vehicle, with at least one hydraulically actuated shifting element (1) made as a transmission clutch, which comprises an inner disk carrier (7) and an outer disk carrier (4) on which, respectively, inner disks (9) and outer disks (8) are arranged rotationally fixed but axially displaceable, the inner and outer disks being arranged alternating, one after another, to form a disk pack which is actuatable by an axial actuation force (F_1) of an actuator (16) to close the shifting element (1), and in which one disk carrier (4) is connected to one of non-rotating or rotating gearbox components and the inner disk carrier (7) is connectable, via a synchronization device (2), to rotating gearbox components (3), and the synchronization device (2) is actuatable by a second actuator (13, 18, 27, 33).

23. (NEW) The automatic gearbox according to claim 22, wherein the synchronization device (2) comprises at least one of a positive-locking element and a frictional element.

24. (NEW) The automatic gearbox according to claim 23, wherein the frictional element is a synchronization ring (11) with a synchronization area (12) on one of the inner and outer disk carriers (4).

25. (NEW) The automatic gearbox according to claim 23, wherein the positive-locking element is a sliding sleeve (14) which is fitted rotationally fixed, but axially displaceable, over outer teeth (17) on one of the rotating or non-rotating gearbox component (3) in such a manner that once rotational speeds of the fixed and rotating gearbox components (3) equalize, the sliding sleeve can be pushed onto a synchronization area (12) of the disk carrier (7) to provide positive locking.

26. (NEW) The automatic gearbox according to claim 25, wherein the sliding sleeve (14) is actuated by the second actuator (13).

27. (NEW) The automatic gearbox according to claim 22, wherein the second actuator (13) is formed as a shifting fork of a control positioning device which engages in a circumferential groove (38) of a sliding sleeve (14).

28. (NEW) The automatic gearbox according to claim 26, wherein the second actuator is a second actuation piston (18) which, together with a first actuation piston (6) that serves to pressurize the inner and outer disks (8, 9), is guided axially within a common actuation cylinder (5).

29. (NEW) The automatic gearbox according to claim 28, wherein one of a common pressure space (20) and respective separate pressure spaces for each of two actuation pistons are formed in the common actuation cylinder (5) for the first and second actuation pistons (6, 18, 27, 33).

30. (NEW) The automatic transmission according to claim 29, wherein the first and second actuation pistons are actuated by one of a same actuation pressure (p_k) and by different actuation pressures.

31. (NEW) The automatic gearbox according to claim 22, wherein a first restoring spring (24) is associated with a first actuation piston (6) and a second restoring spring (25) is associated with a second actuation piston (18), on respective sides facing away from a pressure space (20) of an actuation cylinder (5), which rest against a component fixed to a housing when the shifting element (1) is made as a transmission brake and against a rotating gearbox component when the shifting element (1) is made as a transmission clutch, and a restoring force of the first restoring spring (24) is larger than a restoring force of the second restoring spring (25).

32. (NEW) The automatic gearbox according to claim 22, wherein a sliding sleeve (19) is guided axially displaceably on inner teeth (23) of the inner disk carrier (7) and is actively connected to and is axially displaceable by a second actuation piston (18) via a connection element (26).

33. (NEW) The automatic gearbox according to claim 22, wherein a first synchronization area (41) is formed on a radially inward-facing side of the outer disk carrier (4), and a second synchronization area (28) which co-operates with the first synchronization area (41) is formed on an end face of the second actuation piston (27) remote from the pressure space to achieve rotational speed synchronization.

34. (NEW) The automatic gearbox according to claim 22, wherein a sliding sleeve (39), is fitted axially displaceably on an outer periphery of a first actuation piston (6), which is actively connected to a second actuation piston (33) arranged radially outside a sliding sleeve (39) and in the same compression cylinder (5) as the first actuation piston (6).

35. (NEW) The automatic gearbox according to claim 34, wherein on an outer periphery the sliding sleeve (39) has axially directed teeth (32) on which a synchronization ring (35) is arranged in an axially displaceable but rotationally fixed manner.

36. (NEW) The automatic gearbox according to claim 22, wherein an axially directed toothed area (36) is formed on a synchronization area (34) of an inner circumference of the outer disk carrier (4) in which outer teeth (32) of a sliding sleeve (39) can engage via positive locking.

37. (NEW) The automatic gearbox according to claim 22, wherein a locking device (37) is formed on an inner circumference of a sliding sleeve (39) which only allows axial displacement of a first actuation piston (6), when an equalized rotational speed is achieved by a synchronization device (34, 35) and there is a positive-lock connection between the sliding sleeve (39) and the outer disk carrier (4).

38. (NEW) The automatic transmission according to claim 22, wherein a projection (41), extending axially away from a pressure space (20) of a piston-cylinder arrangement (5, 6, 33), is formed on a first actuation piston (6) by which one of the inner and outer disks (8, 9) of the shifting element (1) can be acted upon by an actuation force (F_1) of the first actuation piston (6).

39. (NEW) The automatic gearbox according to claim 22, wherein instead of a synchronization ring, one of an additional small, hydraulically or electro-mechanically actuated disk clutch is arranged between the inner and outer disk carrier and one of the rotating gearbox component or the component fixed on a housing.

40. (NEW) The automatic gearbox according to claim 22, wherein a hydrodynamic locking device is provided for the first actuation piston (6), which is released when one of a frictional a positive-lock connection exists between the component of the shifting element that is to be immobilized and a gearbox component fixed on the housing.

41. (NEW) The automatic gearbox according to claim 22, wherein by at least one of the two actuation pistons (18, 27, 33) and by the second actuator (13), an electric switch is mechanically actuated for turning a flow of lubricant one of on and off.

42. (NEW) The automatic gearbox according to claim 22, wherein a hydraulic slider which is actuated by the second actuator (13) is mechanically actuate by an electric switch for turning a flow of lubricant one of on and off.